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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/630,430

07/29/2003

Michael B. North-Morris

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7842

7590

12/13/2005

AGILENT TECHNOLOGIES, INC.

Legal Department, DL429

Intellectual Property Administration

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EXAMINER

LYONS, MICHAEL A

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/630,430	NORTH-MORRIS ET AL.	
	Examiner	Art Unit	
	Michael A. Lyons	2877	(Signature)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-20 is/are allowed.
- 6) ☒ Claim(s) 1 and 3 is/are rejected.
- 7) ☒ Claim(s) 2 and 4-5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

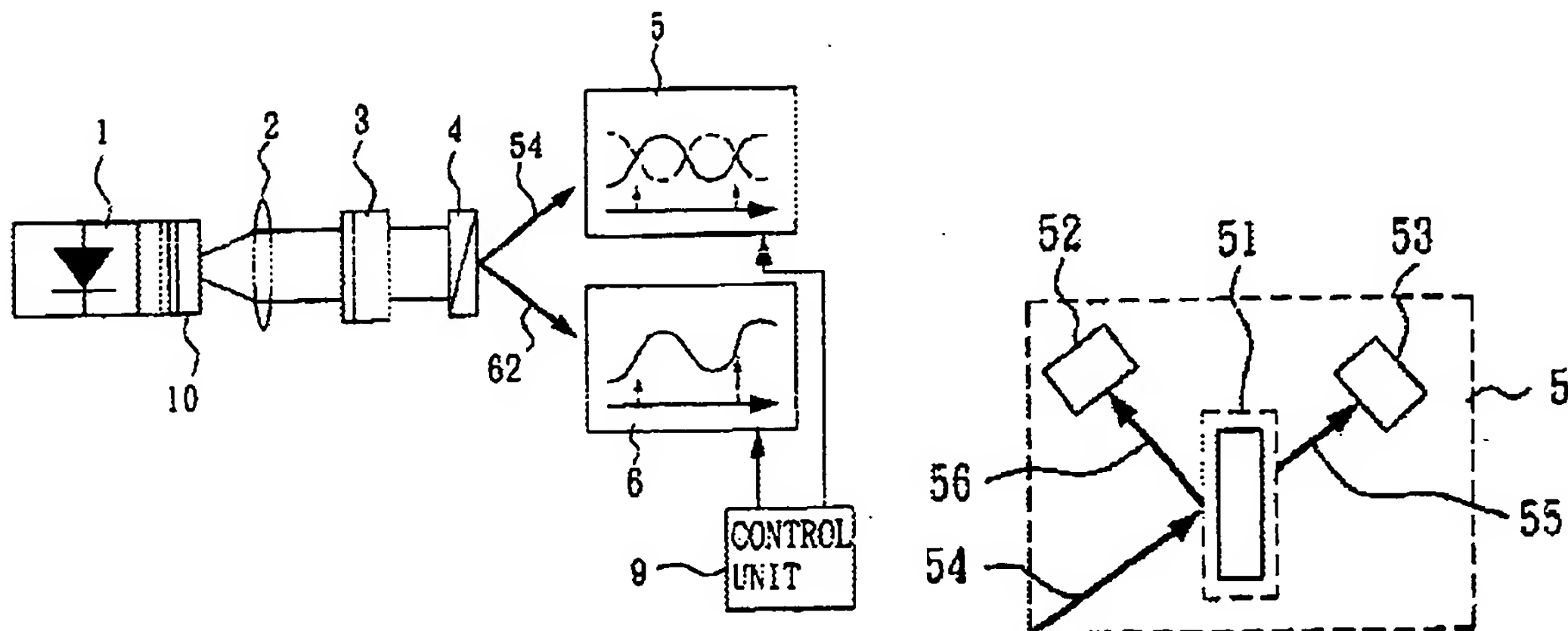
DETAILED ACTION***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (6,885,462).



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Regarding claim 1, Lee (Figs. 1 and 2) discloses an optical system comprising a tunable laser 1 providing a swept optical output and a tracking stage 5 optically coupled to the tunable laser having an optical filter 51 in the form of a Fabry-Perot etalon that provides a periodic optical signal in response to the swept optical output to a detector 53 that provides a periodic optical signal.

The filter, however, while having a “a free spectral range compatible with the spacing of the ITU (International Telecommunication Union) grid channel wavelength” (Col. 4, lines 7-10), fails to disclose a free spectral range being explicitly not less than a greatest expected mode hop of the tunable laser.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use an etalon with the explicit free spectral range being greater than the greatest expected mode hop of the tunable laser, the motivation being that the free spectral range being larger than the greatest expected mode hop would optimize the system; having that free spectral range would enable the device to continue monitoring the output of the tunable laser throughout its entire tune sweep. If the free spectral range was smaller than the greatest expected mode hop, the etalon would potentially block the incoming light after the hop, rendering the device useless.

As for claim 3, Lee discloses control unit 9.

Allowable Subject Matter

Claims 2 and 4-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. See reasoning below.

Claims 6-20 are allowed in view of the prior art.

The following is a statement of reasons for the indication of allowable subject matter:

As to claim 6, the prior art of record, taken either alone or in combination, fails to disclose or render obvious an optical system comprising a tunable laser having a discontinuity over its tuning range between a first wavelength and a second wavelength, a first tracking stage with a first optical filter providing a first periodic optical signal to a first detector, and a second tracking stage with a second optical filter providing a second periodic signal to a second detector, the first filter having a free spectral range not less the difference between the first wavelength and the second wavelength of the discontinuity of the laser, the second filter having a free spectral range selected to provide a desired wavelength resolution of the optical system, in combination with the rest of the limitations of the above claim.

As to claim 20, the prior art of record, taken either alone or in combination, fails to disclose or render obvious an optical system comprising a tunable laser, a first tracking stage with a first optical filter providing a first periodic optical signal to a first detector and a first quadrature signal to a first quadrature detector, and a second tracking stage with a second optical filter providing a second periodic signal to a second detector and a second quadrature signal to a second quadrature detector, the first filter having a free spectral range not less than the greatest expected mode hop of the tunable laser, the second filter having a free spectral range selected to provide a desired wavelength resolution of the optical system, in combination with the rest of the limitations of the above claim.

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Pat. 4,172,663 to Byer et al., US Pat. 4,272,734 to Jarrett et al, US Pat. 5,568,255 to Johnson, and US Pat. 6,870,629 to Vogel et al.

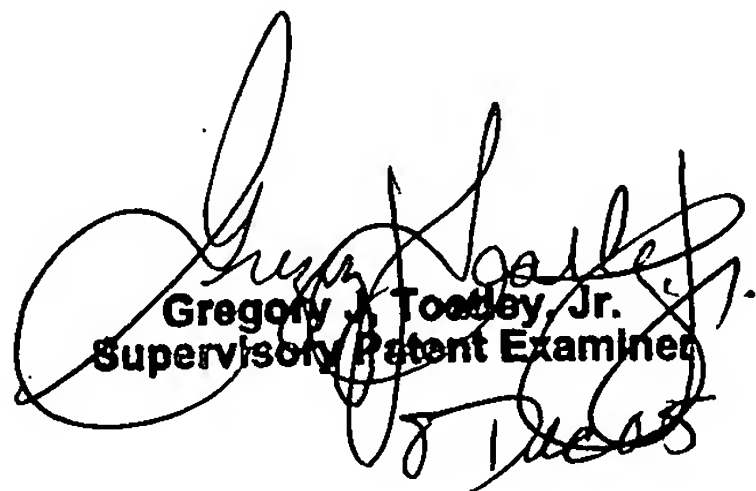
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Lyons whose telephone number is 571-272-2420. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MAL

November 17, 2005


Gregory J. Toatley, Jr.
Supervisory Patent Examiner